EXPLANATION OF SIGNIFICANT DIFFERENCES TO THE 1992 RECORD OF DECISION AND THE 2002 EXPLANATION OF SIGNIFICANT DIFFERENCES AT THE JASCO CHEMICAL COMPANY SUPERFUND SITE IN MOUNTAIN VIEW, CALIFORNIA

I. INTRODUCTION

The Jasco Chemical Company (JASCO) Superfund Site consists of the property located at 1710 Villa Street in Mountain View, CA. The site was listed on the National Priorities List (NPL) on October 4, 1989. The United States Environmental Protection Agency, Region IX (EPA), issued the Record of Decision (ROD) on September 30, 1992. EPA is the lead agency for the site.

This Explanation of Significant Differences (ESD) clarifies one of the modifications to the ROD explained in the 2002 ESD pertaining to the deed restriction. The deed restriction addresses a tetrachloroethene (PCE) plume, originating from an off-site source, which is not part of the JASCO site. Given that the cleanup of site contaminants is complete for the JASCO site, the ESD clarifies that the deed restriction is no longer a component of the CERCLA remedy for the JASCO site. This ESD was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), section 117(c), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the National Oil and Hazardous Substances Contingency Plan (NCP) sections 300.435(c)(2)(i) and 300.825(a)(2).

This ESD will become a part of the Administrative Record file pursuant to NCP §300.825(a)(2) and will be available for review from 8:00 AM to 5:00 PM Monday through Friday, excluding holidays, at the EPA Region IX Superfund Records Center, 95 Hawthorne Street, San Francisco, CA. The Administrative Record File is also available for review at the local repository for JASCO, which is located at the Mountain View Public Library, 585 Franklin Street, Mountain View, CA. The library hours are 10 AM-9 PM Monday through Thursday, 10 AM-6 PM Friday and Saturday, and 1-5 PM on Sunday.

II. SUMMARY OF SITE HISTORY, CONTAMINATION PROBLEMS, SELECTED REMEDY AND 2002 ESD

JASCO repackaged and formulated chemical products on the 2.05 acre Villa Street site from 1976 until December 1995. The facility handled and stored numerous chemicals on site in underground storage tanks, 55-gallon drums, and other containers. Chemicals stored on site include methylene chloride, paint thinner, denatured alcohol, methanol, kerosene, lacquer thinner, and acetone.

The JASCO site came to the attention of regulators in 1983. A private citizen complained about the dumping of materials at the site in January 1983. In 1984, the San Francisco Bay Region, Regional Water Quality Control Board (RWQCB) ordered JASCO to install a monitoring well at the site to determine if the groundwater had been contaminated. Volatile organic compounds (VOCs) were found to be present in the groundwater. VOCs were also discovered in the soils located in the drainage swale area. JASCO began extracting and treating groundwater on February 20, 1987. The treated groundwater was discharged to the publicly owned treatment works (POTW) under a permit from the City Mountain View (City).

Action to address soil contamination at the site commenced in 1988. In August 1988, JASCO submitted a soil characterization report and runoff management plan to the RWQCB. Soil contamination in the drainage swale included methylene chloride at 3,400 parts per million (ppm); trichloroethylene at 490 ppm; toluene at 1,700 ppm; tetrachloroethene at 16 ppm and acetone at 270 ppm. JASCO excavated and disposed of 572 cubic feet of soil from the drainage swale area at the rear of the site during October 1988.

EPA evaluated the JASCO site under the Hazard Ranking System and proposed the site for inclusion on the NPL in June 1988. In December 1988, EPA ordered JASCO to complete a remedial investigation and feasibility study for the site. In 1989, the JASCO site was placed on the NPL. The Remedial Investigation (RI) was completed in 1991 and the Feasibility Study (FS) was completed in 1992.

On September 30, 1992, EPA issued a Record of Decision and selected the following remedy:

1. On-site construction of a liquid-phase carbon adsorption groundwater treatment unit. Groundwater would be extracted and passed through a liquid-phase carbon adsorption bed. The contaminants would adsorb to the activated carbon, which would then be removed from the site and disposed of at a licensed facility. The treated groundwater would continue to be discharged to the sanitary sewer system under a POTW permit from the City, or an alternate method of discharging water that complied with applicable law.

2. Continued groundwater extraction (pump and treat) until cleanup standards were achieved in all present and future wells at the JASCO facility. Table 1, below, depicts all groundwater cleanup standards to be achieved.

3. Maintenance of hydraulic control (pumping of water to control the flow of the plume) to prohibit further vertical and horizontal migration of the groundwater plume. This requirement would remain in effect until the cleanup standards were achieved.

4. Continued quarterly groundwater monitoring at all monitoring and extraction wells on the JASCO site during the cleanup period. Groundwater samples would continue to be collected to verify the progress of the cleanup and that there was no migration of contaminants above cleanup standards beyond current boundaries or into the deeper B(2)-aquifer zone. The frequency of monitoring would be decreased from quarterly to triannually two years after all site soils were remediated. The frequency of monitoring would be further decreased to biannually once groundwater cleanup standards were achieved in all site wells and sampling confirmed groundwater stability for one year. Sampling and reporting requirements for the JASCO site are contained in the Sampling and Analysis Plan for the site which is part of the Administrative Record for the site.

5. Installation of additional extraction (pumping) wells, in quantities and at locations to be determined by EPA, to improve the performance of the groundwater extraction and treatment system.

6. Ex-situ treatment of all site soils containing chemical concentrations greater than the cleanup standards shown on Table 1, below, with the enhanced biotreatment method. Under this method, contaminated soil would be excavated and placed in an enclosed container. The soil would be mixed with nutrients to encourage digestion of contaminants by microorganisms. The container would have an air distribution system along the bottom. Air drawn through this system would provide oxygen to the microorganisms and also extract the VOCs. The air stream would then pass through an activated carbon adsorption system. The carbon would be taken off-site and disposed of at a facility with a permit to accept hazardous waste.

7. Sampling of site soils beneath the production facility, the drum storage area, and the underground storage tank area to ensure that the concentration of contaminants in these areas did not exceed soil cleanup standards. This sampling would commence within six months after completion of treatment of soils located in the drainage swale area. If contamination exceeded the cleanup standards, the soil would be treated as set forth in #6 above, and if necessary, #8 below.

8. Off-site disposal of site soils containing residual concentrations greater than the soil cleanup standards after completion of biological treatment.

9. A restrictive easement (deed restriction). JASCO was required to file a restrictive easement in the official Records of the County of Santa Clara, prohibiting use of on-site shallow groundwater for drinking water purposes and controlling other subsurface activities. The restrictive easement to remain in place until soil and groundwater cleanup standards were achieved.

Table 1. Summary of Selected Cleanup Standards for Groundwater and Soil Based on Potential Migration to Groundwater

	Groundwater Standards (ppm)	Cleanup Standards for Soil (ppm)
Acetone	4	30
Benzene	0.001	0.3
Choroethane	30	4,000
1,1-Dichloroethane	0.005	0.6
1,1-Dichloroethene	0.006	2.0
1,2-Dichloroethane	0.0005	0.03
c-1,2-Dichloroethene	0.006	1
Diesel or kerosene mixture	3	10,000
Ethylbenzene	0.68	3,000
Methanol	20	200
Methyl Ethyl Ketone	0.6	9
Methylene Chloride	0.005	0.2
Pentachlorophenol (PCP)	0.001	200
Tetrachloroethene (PCE)	0.005	7
Toulene	1	1,000
1,1,1-Trichloroethane	0.2	100
Trichloroethene (TCE)	0.005	3
Vinyl Chloride	0.0005	0.02
Xylenes	1.75	2,000

On September 13, 2002, EPA issued an ESD and modified the remedial action selected in the ROD. The ESD modified the treatment method for groundwater, the treatment method for soil in the drainage swale area at the rear of the JASCO facility, and the deed restriction requirement. The groundwater remedy was modified to utilize an air stripper and vapor-phase carbon adsorption treatment in order to meet more stringent National Pollutant Discharge Elimination System (NPDES) permit requirements, which were not in place when the ROD was signed. The soil remedy was modified to utilize ex-situ soil bio-treatment site-wide except at the rear of the JASCO facility (the drainage swale area), which borders a commuter rail line. The soil in the drainage swale area was treated using soil vapor extraction (SVE), since excavation so close to the railroad tracks would not have been feasible. The deed restriction identified in the ROD was adjusted to reflect that the groundwater at the JASCO site had been subsequently impacted by an off-site source of contamination.

III. DESCRIPTION OF SIGNIFICANT DIFFERENCES AND THE BASIS FOR THESE DIFFERENCES

Deed Restriction

The ROD states that JASCO shall be required to put a deed restriction in place to restrict the use of groundwater for drinking water purposes and to control other subsurface activities until soil and groundwater cleanup standards are achieved. However, after the ROD was finalized, a distinct plume of PCE was discovered. EPA conducted an analysis and concluded that the plume did not result from JASCO operations and that the source was off-site. Thus, JASCO will not be held responsible for cleaning up this PCE plume. Nevertheless, this PCE plume is adversely impacting groundwater at the JASCO site. Consequently, to ensure protection of human health and the environment, groundwater use and subsurface activities at the JASCO site must remain restricted until such time as the appropriate authorities are able to address the PCE plume.

The 2002 ESD modified the deed restriction identified in the ROD to reflect that groundwater at the JASCO site had been subsequently impacted by an off-site source of contamination. A restriction was put in place in order to eliminate the potential for exposure to chemical vapors during future construction activities at the site and to ensure that the underlying groundwater would not be disturbed. Under the terms of the restriction, activities that may disturb the effectiveness of the extraction and monitoring system or cause the release of contaminants from the vadose zone or the groundwater at the site (e.g., excavation, grading, removal, trenching, filling, earthmoving, or mining) are restricted. This restriction was recorded in 2010 as an "Environmental Restriction" under Section 1471 of the California Civil Code (CCC) and runs with the land. An "Environmental Restriction" under Section 1471 is a covenant or grant under which an owner or grantee of land covenants to do or refrain from doing some act on his or her land that is reasonably necessary to protect human health or the environment. CCC § 1471. The JASCO site Environmental Restriction involves a covenant or grant from the property owner to the California Regional Water Quality Control Board for the San Francisco Bay Region (RWQCB).

The cleanup goals specified in the ROD for both soil and groundwater were achieved in 2002. During 18 consecutive quarters from 2002 – 2006, no Contaminants of Concern (COCs) were present in groundwater above cleanup standards other than PCE, as documented in the 2007 Five-Year Review. The deed restriction, though necessary and protective, is addressing a release that is not part of the site. Therefore, this ESD clarifies that the deed restriction is no longer a component of the CERCLA remedy for the JASCO site. The appropriate state authority, the California Department of Toxic Substances Control (DTSC), has agreed to address the PCE plume, and the RWQCB is the signatory to the existing deed restriction (see Appendix A). No further CERCLA remedy decision is needed.

Applicable or Relevant and Appropriate Requirements (ARARs)

The changes to the remedy that were discussed in this ESD continue to meet all ARARs. The ARARs determined to be pertinent to the selected remedy in the ROD are also pertinent to the remedy in the ESD.

IV. COMPARATIVE SUMMARY OF SIGNIFICANT DIFFERENCES IN THE REMEDY AND 2002 ESD

1992 Remedy from ROD	2002 ESD Remedy	2012 ESD Remedy
Deed restriction in place to restrict the use of groundwater for drinking water purposes and to control other subsurface activities until cleanup levels are met in soil and groundwater	Restriction was put in place in order to eliminate the potential for exposure to VOC vapors during future construction activities at the site and to ensure that the underlying groundwater will not be disturbed	Clarification of purpose of deed restriction

V. SUPPORT AGENCY COMMENTS

The support agency for the JASCO site has been the San Francisco Bay Region RWQCB. However, DTSC is the lead agency in addressing the PCE plume. EPA consulted with DTSC prior to issuing the ESD and provided an opportunity to comment. DTSC concurs with the ESD.

VI. AFFIRMATION OF STATUTORY DETERMINATION

Based on the confirmation sampling and groundwater monitoring that took place at the JASCO site (including the drainage swale area) and considering the changes that have been made to the selected remedy, U.S. EPA believes that the remedy remains protective of human health and the environment, continues to meet ARARs as specified in the NCP, section 300.430(f)(l)(ii)(B)(l) and (2), and complies with CERCLA §121.

VII. PUBLIC PARTICIPATION COMPLIANCE

An ESD notice will be published in a local newspaper as required by the NCP, section 300.435(c)(2)(i)(B). No significant changes have been made that will affect the end result of remedial action. The public participation requirements set out in the NCP, sections 300.435(c)(2)(i) and 300.825(a)(2), will continue to, be met.

Kathleen Salyer, Chief
Superfund Site Cleanup Branch
U.S. Environmental Protection Agency
Region 9

9/26/12
Date

APPENDIX A
Villa Street PCE Plume Case Referral Letter

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

August 24, 2012

Mark Piros
Unit Chief - South Bay Counties
Brownfields and Environmental Restoration Program
Department of Toxic Substances Control
700 Heinz Avenue
Berkeley, CA 94710-2721

Re: Case Referral – Villa Street PCE Plume

Dear Mr. Piros:

This letter confirms the U.S. Environmental Protection agency (USEPA) is referring the Villa Street tetrachloroethene (PCE) plume to the Department of Toxic Substances Control (DTSC). As per our phone conversation on August 16th, 2012, DTSC has accepted the site and will be the regulatory oversight agency for the Villa Street PCE plume.

USEPA initially identified the Villa Street PCE plume during cleanup activities at the Jasco Chemical Company (JASCO) Superfund Site. The JASCO Superfund Site, listed on the National Priorities List (NPL) on October 4, 1989, consists of the property located at 1710 Villa Street in Mountain View, CA. USEPA is the lead regulatory agency for the JASCO site. The Villa Street PCE plume appeared in monitoring wells for the JASCO site in 1995. After detailed analysis, the USEPA concluded that the JASCO Site was not the source of this PCE contamination. However, in 2002, USEPA modified the deed restriction requirement in the remedy selected for the JASCO site to reflect that groundwater at the JASCO site was impacted by this PCE plume. The USEPA has notified DTSC that the cleanup of site contamination is complete for the JASCO Superfund Site and onsite remedial activities have ceased.

USEPA submitted a MOA application on September 17th, 2010 to DTSC, for DTSC and the RWQCB to determine which agency will be taking the lead on the on the Villa Street PCE Plume. On December 30th, 2010, DTSC completed its consultation with the RWQCB and it was concluded that DTSC would be the more appropriate lead State agency. USEPA provided information to DTSC concerning the scope of the plume and the search for potentially responsible parties in a meeting on May 21st, 2012. We greatly appreciate the DTSC's efforts to protect groundwater in the South Bay and look forward to collaborating with you in the future.

Thank you for your attention to this matter. If you have any questions, please do not hesitate to call me at (415)972-3148 or suer.lynn@epa.gov.

Sincerely,

Lynn Suer
Section Chief - CA Site Cleanup Branch 2
Superfund Division